

SPE RESPONSE FOR CERTIFICATE OF CORRECTION

Paper No.: _____

DATE : 4/3/09

TO SPE OF : ART UNIT 2837

SUBJECT : Request for Certificate of Correction for Appl. No.: 10806635 Patent No.: 7479746 B2

Please respond to this request for a certificate of correction within 7 days.

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Please review the requested changes/corrections as shown in the **COCIN** document(s) in the IFW application image. No new matter should be introduced, nor should the scope or meaning of the claims be changed.

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All changes apply.

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State the reasons for denial below.

Comments: _____

All Approved

/Erick Glass/ /April 8, 2009/

SPE RESPONSE FOR CERTIFICATE OF CORRECTION

SPE

Art Unit

UNITED STATES PATENT AND TRADEMARK OFFICE
CERTIFICATE OF CORRECTION

PATENT NO. : 7479746 B2
APPLICATION NO. : 10/806,635
ISSUE DATE : 01/20/09
INVENTOR(S) : ROZMAN, GREGORY I.

1 of 4

It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

The Title Page, showing an illustrative figure, should be deleted and substitute therefor the attached Title Page.

Delete drawing sheet and substitute therefor the drawing sheet, consisting of figs. 1 and 2 as shown on the attached page.

UNITED STATES PATENT AND TRADEMARK OFFICE
CERTIFICATE OF CORRECTION

Page 2 of 4

PATENT NO. : 7,479,746 B2
APPLICATION NO.: 10/806,635
ISSUE DATE : January 20, 2009
INVENTOR(S) : Rozman et al.

It is certified that an error appears or errors appear in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

~~IN THE CLAIMS:~~

~~IN THE CLAIMS:~~

IN THE CLAIMS:

Claim 6, Column 4, line 20: "inverter" should read as --converter--

Claim 9, Column 4, line 35: "toad" should read as --load--

Claim 19, Column 6, line 3: "convened" should read as --converted--

MAILING ADDRESS OF SENDER (Please do not use customer number below):

Carlson, Gaskey & Olds, P.C.
400 West Maple Road, Suite 350
Birmingham, MI 48009

This collection of information is required by 37 CFR 1.322, 1.323, and 1.324. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 1.0 hour to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Attention Certificate of Corrections Branch, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

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APR 01 2009



US007479746B2

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(12) **United States Patent**
Rozman et al.

(10) Patent No.: **US 7,479,746 B2**
(45) Date of Patent: **Jan. 20, 2009**

(54) **POWER CONVERTER FOR AN ELECTRIC
ENGINE START SYSTEM**

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(73) Assignee: **Hamilton Sundstrand Corporation**,
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(*) Notice: Subject to any disclaimer, the term of this
patent is extended or adjusted under 35
U.S.C. 154(b) by 685 days.

(21) Appl. No.: **10/806,635**

(22) Filed: **Mar. 23, 2004**

(65) **Prior Publication Data**

US 2005/0212466 A1 Sep. 29, 2005

(51) Int. Cl.
H02P 1/54 (2006.01)
H02P 5/00 (2006.01)
H02P 5/46 (2006.01)

(52) U.S. Cl. 318/98; 318/101; 318/453;
318/623

(58) Field of Classification Search 318/98,
318/101, 453, 623
See application file for complete search history.

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U.S. Appl. No. 10/872,625, filed Jun. 21, 2004.

* cited by examiner

Primary Examiner—Walter Benson

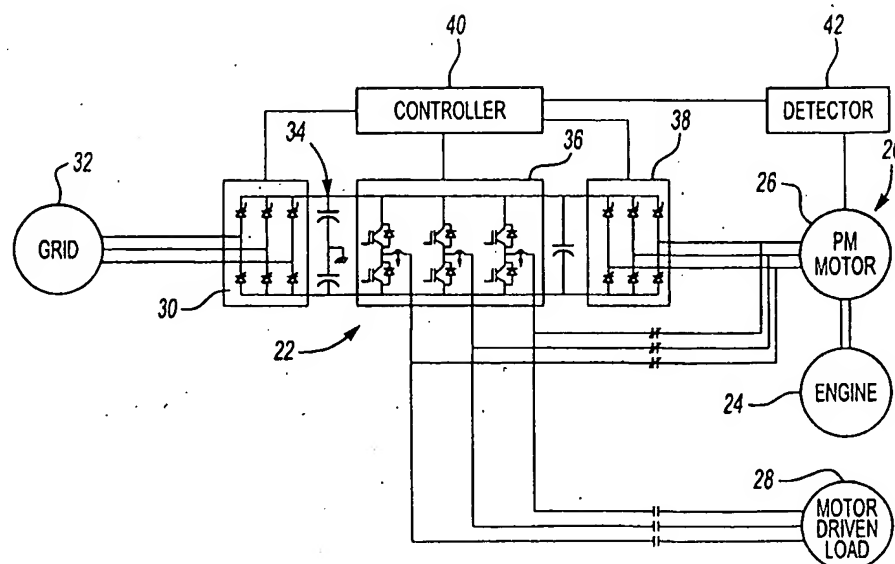
Assistant Examiner—Erick Glass

(74) Attorney, Agent, or Firm—Carlson, Gaskey & Olds

(57) **ABSTRACT**

An electric engine starting system includes a permanent magnet motor that is used to start the engine and then to generate power for powering a load while the engine is running. A disclosed system includes a first phase controlled rectifier in series with a power converter and a second phase controlled rectifier. During an engine starting operation, the first phase controlled rectifier is switched to couple the permanent magnet motor to a power source for starting the engine. Once the engine is running, the first phase controlled rectifier is switched off and the second phase controlled rectifier is switched on. The second phase control rectifier converts variable AC power from the motor into DC power. The power converter converts the DC power into an appropriate power for driving the load. One disclosed example includes a filter between the power converter and the load to ensure that the load receives a selected quality of power.

20 Claims, 1 Drawing Sheet



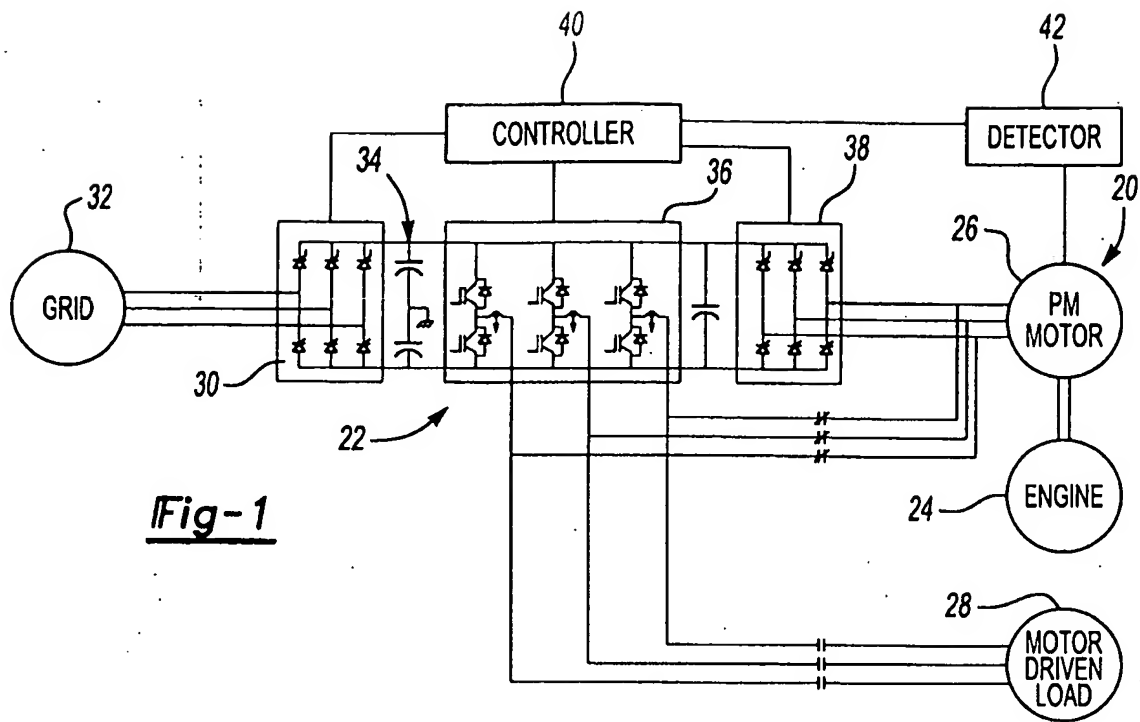


Fig-1

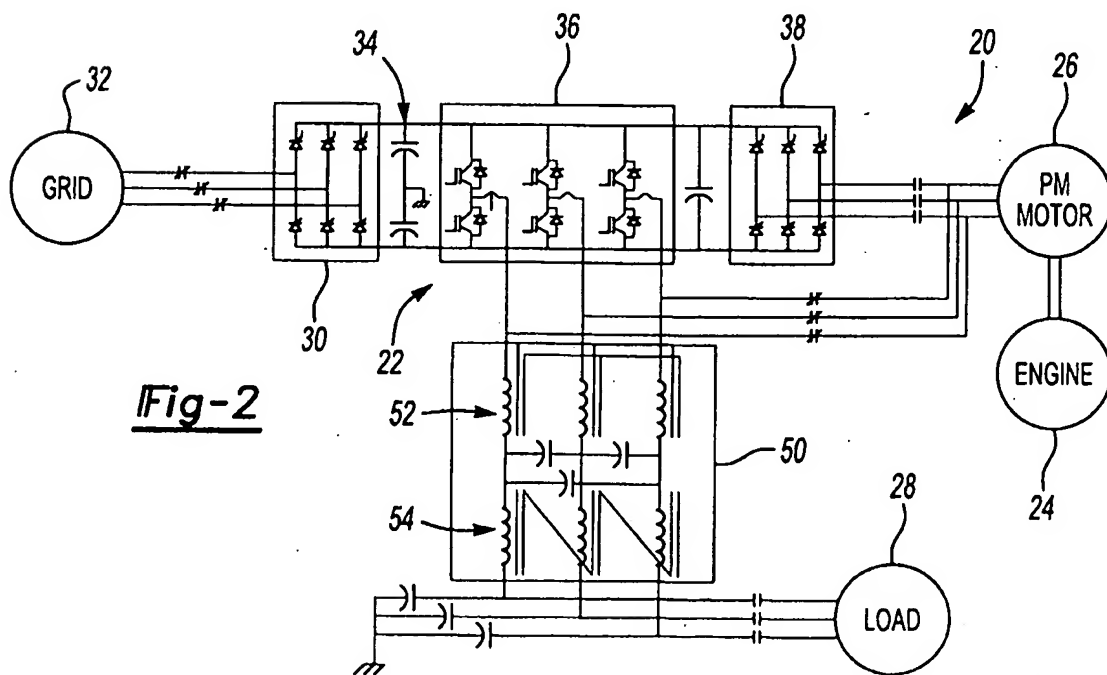


Fig-2